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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,043	06/25/2003	Simon C. Chu	RPS920030076US1	3778
47052	7590	07/03/2007		
SAWYER LAW GROUP LLP PO BOX 51418 PALO ALTO, CA 94303			EXAMINER COULTER, KENNETH R	
			ART UNIT 2141	PAPER NUMBER
			MAIL DATE 07/03/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/606,043

Applicant(s)

CHU ET AL.

Examiner

Kenneth R. Coulter

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/25/03 and 10/16/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/25/06; 9/25/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

1. The use of the trademark BladeCenter™ has been noted in this application (p. 1, line 16; p. 4, lines 7, 20; p. 5, line 8; p. 14, line 16). It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 13, and 25 are rejected as a single means claim.

A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When

Art Unit: 2141

claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor. (see MPEP 2164.08(b)).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 – 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase “a number of servers assigned to each of the plurality of switch modules is **substantially equal**” (independent claims 1, 13, 25, 32, 37, and 40) is not clear.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Art Unit: 2141

6. Claims 13 – 24 and 40 – 42 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 13 – 24 and 40 – 42 are directed to software that is not implemented on a computer-readable storage medium.

Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2141

8. Claims 1 – 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Watt (U.S. Pat. No. 7,213,065) (System and Method for Dynamic Server Allocation and Provisioning).

8.1 Regarding claim 1, Watt discloses a method for load balancing a plurality of switch modules in a server system, the server system including a plurality of servers, the method comprising the steps of:

a) assigning each of the plurality of servers to a switch module of the plurality of switch modules, such that a number of servers assigned to each of the plurality of switch modules is *substantially equal* (Abstract; Fig. 2; col. 8, line 65 – col. 9, line 16).

8.2 Per claim 2, Watt teaches the method of claim 1, further comprising the step of:

b) storing for each server a switch assignment in the server's non-volatile storage, wherein the switch assignment identifies the assigned switch module (Fig. 5, items 518, 522; col. 8, line 65 – col. 9, line 16 “flash memory”; col. 18, lines 34 – 60 “EPROM”; “PROM”).

8.3 Regarding claim 3, Watt discloses the method of claim 2, wherein the assigning step (a) further comprising: (a1) determining whether a server must be assigned to a switch module by examining the server's non-volatile storage (Abstract; Fig. 3; col. 2, lines 33 – 47; col. 8, line 65 – col. 9, line 16 “flash memory of the server 308”).

Art Unit: 2141

8.4 Per claim 4, Watt teaches the method of claim 3, wherein the determining step (a1) further comprising: (a1i) concluding that the server must be assigned if the non-volatile storage does not include a switch assignment (Figs. 3, 5; col. 8, line 65 – col. 9, line 16; col. 18, lines 34 – 60; col. 11, lines 15 – 55); else (a1ii) determining whether an existing switch assignment is valid if a switch assignment is found in the non-volatile storage (Abstract; Figs. 3, 5; col. 8, line 65 – col. 9, line 16; col. 11, lines 15 – 55); and (a1iii) concluding that the server must be assigned if the existing switch assignment is invalid (Abstract; Figs. 3, 5; col. 8, line 65 – col. 9, line 16; col. 11, lines 15 – 55).

8.5 Regarding claim 5, Watt discloses the method of claim 3, wherein the assigning step (a) further comprising: (a2) accessing a switch assignment table to determine which of the plurality of switch modules to assign to the server if the server must be assigned (Abstract; Fig. 2; col. 2, lines 33 – 47; col. 11, lines 18 – 34).

8.6 Per claim 6, Watt teaches the method of claim 5, wherein the switch assignment table includes information related to each of the switch modules and the servers assigned thereto (Abstract; Fig. 2; col. 2, lines 33 – 47; col. 11, lines 18 – 34).

8.7 Regarding claim 7, Watt discloses the method of claim 5, wherein the accessing step (a2) further comprising the steps of: (a2i) utilizing the switch assignment table to evaluate a present load distribution across the plurality of switch modules (Abstract; Fig. 2; col. 3, lines 11 – 20); and (a2ii) assigning the server to the next switch module if the

Art Unit: 2141

number of servers assigned to a current switch module is **greater than** the number of servers assigned to a next switch module (Fig. 2; Table 2).

8.8 Per claim 8, Watt teaches the method of claim 7, wherein the accessing step (a2) further comprising: (a2iii) assigning the server to the current switch module if the number of servers assigned to the current switch module is not greater than that assigned to the next switch module (Fig. 2; Table 2); else (a2iv) assigning the server to the current switch module if the number of servers assigned to the current switch module is equal to that assigned to the next switch module and the next switch module is a last switch module (Abstract; Fig. 2; Table 2); else (a2v) repeating steps (a2ii) through (a2v) if the number of servers assigned to the current switch module is equal to that assigned to the next switch module and the next switch module is not a last switch module, wherein the next switch module becomes the current switch module (Fig. 2; Table 2).

8.9 Regarding claim 9, Watt discloses the method of claim 5, wherein the assigning step (a) further comprising: (a3) updating the switch assignment table (col. 8, lines 44 – 56).

8.10 Per claim 10, Watt teaches the method of claim 2 further comprising the step of: (c) utilizing the assigned switch module for access to a network (Abstract; Fig. 2; col. 3, lines 33 – 47).

8.11 Regarding claim 11, Watt discloses the method of claim 10, wherein the utilizing step (c) further comprising: (c1) examining the server's non-volatile storage during a remote boot process to determine whether a switch assignment is present; (c2) requesting, receiving and storing a new switch assignment if the switch assignment is not present; and (c3) booting via the assigned switch (Abstract; Fig. 3; col. 2, lines 33 – 47; col. 6, lines 46 – 57; col. 8, line 65 – col. 9, line 16; col. 22, lines 19 – 46).

8.12 Per claim 12, Watt teaches the method of claim 5, wherein the assigning step (a) is performed during a system power up sequence and when a new server is added to the plurality of servers (Fig. 2; col. 2, lines 48 – 57; col. 11, lines 35 – 55).

8.13 Regarding claims 13 – 42, the rejection of claims 1 – 12 under 35 USC 102(e) (paragraphs 8.1 – 8.12) applies fully.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Watt U.S. Pat. Pub. No. 2003/0126202 System and Method for Dynamic
Server Allocation and Provisioning
Equivalent to U.S. Pat. No. 7,213,065

Lu et al. U.S. Pat. No. 7,117,269 (U.S. Pat. Pub. No. 2002/0194345)

Packet Switch With Load Surge-Control and Methods Thereof

Load balancing scheme for servers (see Abstract; paragraph 85).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth R. Coulter whose telephone number is 571 272-3879. The examiner can normally be reached on M - F, 7:30 am - 4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KENNETH R. COULTER

PRIMARY EXAMINER


krc